<u>WHAT IS CLAIMED IS:</u>

1. A sentence reconstruction method, for resolving word ambiguities in a selected language sentence structure, comprising the steps of:

(a) storing a sentence structure having a sequence of word positions with at least one word position represented by a word group including alternative word choices;

(b) utilizing a stored word use rule set representative of relative frequency of particular word usage in said selected language to derive, for the word group for one of said word positions, probability values for word choices for said word position;

(c) utilizing a stored language rule set representative of usage in said selected language to derive probability values for sequencing of individual word choices for said word position relative to at least one word choice for an adjacent word position in said sentence structure, said language rule set including rules in both of the following categories (i) rules based on transitional probability of use of particular word sequences, and (ii) rules based on probability of relative positioning of words of particular word categories in a sentence structure; and

(d) selecting, by use of said probability values derived in steps (b) and (c), one word from each said word group for inclusion at a respective word position in a reconstructed sentence structure.

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1 2. A sentence reconstruction method as in claim 1,
2 wherein step (a) comprises accessing a database including a
3 word list including word groups of alternative word choices
4 for particular word positions generated by use of
5 predetermined word association techniques.

1 3. A sentence reconstruction method as in claim 2,
2 wherein said word association techniques comprise one of the
3 following: phonetic word association, similarly spelled word
4 association, and definitional alternatives of translated
5 words.

1 4. A sentence reconstruction method as in claim 1,
2 including between steps (a) and (b) an additional step as
3 follows:
4   (x) for each word position for which no word
5 group including at least one word choice is identified in
6 step (a), utilizing a stored word assembler unit to attempt
7 to identify at least one of a suffix construction, a prefix
8 construction and a combination word construction, and to
9 thereby identify a word group including at least one word
10 choice for said word position.

1 5. A sentence reconstruction method as in claim 1,
2 wherein in step (c) category (i) includes rules based on
3 transitional probabilities of use of particular word pairs.

1 6. A sentence reconstruction method as in claim 1,

2   including between steps (c) and (d) an additional step as

3   follows:

4   (y) repeating steps (b) and (c) for any

5   additional word positions having word groups including

6   alternative word choices.

1   7. A sentence reconstruction method as in claim 1,

2   wherein step (d) comprises selecting words for inclusion in

3   said reconstructed sentence structure based upon the highest

4   relative probability values as derived in step (c).

1   8. A sentence reconstruction method as in claim 1,

2   additionally including the following step:

3   (e) using the words selected in step (d) to

4   provide a representation of the reconstructed sentence

5   structure in at least one of the following forms: a viewable

6   display, a printout, a synthesized speech output.

1   9. A sentence reconstruction method as in claim 1,

2   wherein in step (a) said sentence structure is the stored

3   resultant of one of the following (i) computerized storage

4   of spoken words, (ii) typed input subject to transcription

5   errors, (iii) translation of text provided in a first

6   language into a second language, and step (a) additionally

7   includes generating, by computer use-of a stored word list,

8   word groups of alternative word choices for particular word

9   positions by use of predetermined word association

10   techniques.

1   10. A sentence reconstruction method as in claim 9,

2 wherein said word association techniques comprise one of the

3 following: phonetic word association, similarly spelled word

4 association, and definitional alternatives of translated

5 words.

1   11. A sentence reconstruction method, for resolving

2 word ambiguities in a selected language sentence structure,

3 comprising the steps of:

4   (a) storing a sentence structure having a

5 sequence of word positions including at least one letter for

6 each word position;

7   (b) accessing a database including a word list to

8 identify for an individual word position a word group

9 including alternative word choices formable using at least

10 one letter included for said word position;

11   (c) utilizing a stored word use rule set

12 representative of relative frequency of particular word

13 usage in said selected language to derive, for the word

14 group for said word position, probability values for word

15 choices for said word position;

16   (d) utilizing a stored language rule set

17 representative of usage in said selected language to derive

18 probability values for sequencing of individual word choices

19 for said word position relative to at least one word choice

20 for an adjacent word position in said sentence structure,

21 said language rule set including rules in both of the

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22   following categories (i) rules based on transitional

23   probability of use of particular word sequences, and (ii)

24   rules based on probability of relative positioning of words

25   of particular word categories in a sentence structure; and

26   (e)   selecting, by use of said probability values

27   derived in steps (c) and (d), one word from each said word

28   group for inclusion at a respective word position in a

29   reconstructed sentence structure.

1   12.   A sentence reconstruction method as in claim 11,

2   wherein step (b) comprises accessing a database including a

3   word list including word groups of alternative word choices

4   for particular word positions generated by use of

5   predetermined word association techniques.

1   13.   A sentence reconstruction method as in claim 11,

2   including between steps (b) and (c) an additional step as

3   follows:

4   (x)   for each word position for which no word

5   group including at least one word choice is identified in

6   step (b), utilizing a stored word assembler unit to attempt

7   to identify at least one of a suffix construction, a prefix

8   construction and a combination word construction, and to

9   thereby identify a word group including at least one word

10   choice for said word position.

1   14.   A sentence reconstruction method as in claim 11,

2   wherein in step (d) category (i) includes rules based on

3   transitional probabilities of use of particular word pairs.

1   15.   A sentence reconstruction method as in claim 11,
2   including between steps (d) and (e) an additional step as
3   follows:
4   (y)   repeating steps (c) and (d) for any
5   additional word positions having word groups including
6   alternative word choices.

1   16.   A sentence reconstruction method as in claim 11,
2   wherein in step (a) said sentence structure is the stored
3   resultant of one of the following (i) computerized storage
4   of spoken words, (ii) typed input subject to transcription
5   errors, (iii) translation of text provided in a first
6   language into a second language, and step (b) additionally
7   includes generating, by computer use of a stored word list,
8   word groups of alternative word choices for particular word
9   positions by use of predetermined word association
10   techniques.

1   17.   A sentence reconstruction method as in claim 16,
2   wherein said word association techniques comprise one of the
3   following: phonetic word association, similarly spelled word
4   association, and definitional alternatives of translated
5   words.

1   18.   A sentence reconstruction system to resolve word
2   ambiguities in a selected language sentence structure

3 comprising:

4   a memory unit arranged to store

5   - a sentence structure having a sequence of

6   word positions each comprising at least one

7   letter;

8   - a word list of words of said selected

9   language;

10   - a word use rule set representative of

11   frequency of particular word usage in said

12   selected language; and

13   - a language rule set including rules in both

14   of the following categories (i) rules based

15   on transitional probability of use of

16   particular word sequences, and (ii) rules

17   based on probability of relative positioning

18   of particular word categories in a sentence

19   structure;

20   a processor arranged to (i) use said word list to

21 identify, for said sequence of word positions, word groups

22 including alternative word choices formable using at least

23 one letter included for each said word position, (ii) use

24 said word use rule set to derive probability values for word

25 choices for the word group for each said word position, and

26 (iii) use both categories of rules of said language rule set

27 to derive probability values for sequencing of individual

28 word choices for individual word positions relative to at

29 least one word choice for an adjacent word position in said

30 sentence structure, and to select, by use of said

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31 probability values, one word from each said word group for
32 inclusion at a respective word position ir a reconstructed
33 sentence structure; and

34   an output device arranged to provide a
35 representation of said reconstructed sentence structure.

1   19. A sentence reconstruction system as in claim 18,
2 wherein said memory unit is arranged to store said language
3 rule set including rules in both of said categories (i) and
4 (ii), and category (i) includes rules based on transitional
5 probabilities of use of particular word pairs.

1   20. A sentence reconstruction system as in claim 18,
2 wherein said output device provides said representation in
3 the form of at least one of a viewable display, a printout,
4 and synthesized speech.